Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109
	)	

To: The Commission

JOINT COMMENTS OF SATELLITE BROADBAND PROVIDERS (DISH Network L.L.C., EchoStar Technologies L.L.C., Hughes Network Systems, LLC, ViaSat, Inc., and WildBlue Communications, Inc.)

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SUMMARY

The Satellite Broadband Providers strongly support the Commission's efforts to reform the federal high-cost universal service program. Competitive neutrality and fiscal responsibility are key principles to guide this effort. Greater reliance on satellite broadband to achieve universal service goals is entirely consistent with the proposed principles. The Administration and the Commission have made ubiquitous broadband a national priority, and satellite broadband providers hold the key to achieving these ambitious goals on a timely and cost-effective basis.

Contrary to assumptions in the NPRM and the National Broadband Plan, capacity limitations provide no basis to exclude satellite broadband providers from direct participation in Phase I of the Connect America Fund ("CAF") or for limiting participation in Phase II. There are no technical limitations preventing the satellite broadband industry from expanding as required to meet anticipated demand. *No* provider—terrestrial or satellite—currently possesses infrastructure or capacity sufficient to extend broadband service to every unserved household. Indeed, an important goal of the CAF is to offer providers an incentive to expand broadband where market forces have not otherwise provided a reason to invest in infrastructure in these areas. The relevant question is not whether satellite broadband providers can solve the nation's broadband concerns with currently committed capacity, but rather whether satellite broadband providers should be permitted to compete on an equal basis with other providers for funding to add the capacity needed to serve the unserved. Unquestionably, they should be allowed to do so.

Satellite broadband providers can offer high-speed, quality broadband services, comparable to many terrestrial technologies across key relevant metrics of service. Satellite broadband supports important broadband applications, including VoIP, streaming video, and high-definition video conferencing. Thus, there is also no valid technical reason to exclude satellite broadband providers from participating fully and directly.

By allowing satellite broadband providers to participate fully in the CAF, the Commission can use market forces more efficiently and achieve its goals more cost-effectively. Restricting satellite broadband providers' participation, by contrast, would also conflict with competitive neutrality. The NPRM's alternatives to full participation are unworkable. If satellite broadband providers are excluded from full participation, they also should be excluded from contribution obligations; no class of providers that is capable of providing the supported services has ever been required to contribute yet was excluded from participation.

Because the Eligible Telecommunications Carrier ("ETC") requirements should facilitate, and not impede, achievement of national broadband goals, the Commission should exercise its statutory authority to make support available to non-common carrier broadband providers. This is consistent with precedent. There should be federal procedures to designate nationwide broadband providers as ETCs in all states, consistent with the Commission's authority under section 214(e)(6). Similarly, the public interest obligations should reflect how broadband is delivered today. States should not be permitted to impose any obligations on funding recipients that are not otherwise subject to state jurisdiction, and legacy incumbent regulations – including particularly carrier-of-last-resort obligations, should not be carried into the CAF. Broadband should be defined without reference to any particular technology, based on a threshold of at least 4 Mbps downstream and 1 Mbps upstream.

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DISH Network L.L.C., EchoStar Technologies L.L.C., Hughes Network Systems, LLC, ViaSat, Inc., and WildBlue Communications, Inc. (collectively, the "Satellite Broadband Providers") provide these comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM") requesting comment on reforms to the federal universal service programs for rural and high-cost areas.[1] The Satellite Broadband Providers are the primary

[1] *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 07-135, WC Docket No. 05-337, CC Docket No. 01-92, CC Docket No. 96-45, WC Docket No. 03-109, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, FCC 11-13 (rel. Feb. 9, 2011) ("NPRM").

providers of consumer satellite broadband service in the United States, collectively serving over a million households.

The Satellite Broadband Providers file these joint comments to emphasize the significant points of agreement among us regarding reform of the high-cost universal service system. As discussed below, the Satellite Broadband Providers agree that the universal service fund ("USF") system must be reformed to make it more efficient and to modernize it for the broadband era. Satellite broadband can play a crucial role in connecting more Americans quicker and more economically. In order to do so, however, satellite broadband providers must be able to compete for support directly and on an equal footing with other broadband providers.

I. THE SATELLITE BROADBAND PROVIDERS STRONGLY SUPPORT THE COMMISSION'S EFFORTS TO REFORM THE FEDERAL HIGH-COST USF PROGRAM

As the Commission and several other policymakers have noted, the universal service system is "broken" and must be reformed.[2] The Commission has correctly identified the two major problems in the existing system. First, the current USF high-cost program is riddled with inefficiencies that waste consumers' money without effectively furthering the program's goals.[3] Second, and most importantly, the existing fund, which has not been reformed in more than a

[2] NPRM at ¶ 9 (quoting Reps. Lee Terry and Rick Boucher); *see also Boucher, Terry Introduce Universal Service Reform Act of 2010*, Press Release, 111th Congress (rel. July 22, 2010).

[3] NPRM at ¶ 7 ("In addition, fundamental inefficiencies riddle both USF and ICC. In many areas of the country, USF provides more support than necessary to achieve our goals. … Practices like these and the disputes surrounding them cost hundreds of millions of dollars annually that could be used for investment and more productive endeavors—costs that are ultimately borne by consumers.").

decade, is focused on an outdated goal of supporting voice-only telephone service and does not effectively or explicitly support the national goal of universal broadband access.[4]

To guide the Commission as it reforms USF, the NPRM sets out four principles.[5] These principles emphasize the need to move the nation's universal service beyond voice-only service using cost-effective, technology-agnostic and competitively neutral reforms, which the Satellite Broadband Providers fully support. This necessary refocusing of the universal service system acknowledges the fundamental shift in U.S. communications systems beyond voice-only services to IP-based services over broadband.

The Commission also prudently proposes to make fiscal responsibility a priority and performance goal of the high-cost universal service system. Ultimately, consumers pay for the USF. Every effort to subsidize service for one customer raises prices for another. Universal service therefore should be provided in the most economical way possible. As discussed in more detail below, satellite broadband can be a crucial element in achieving fiscal discipline for the CAF. In a similar vein, the Commission proposes to require greater accountability from companies receiving support. This too is an essential element of reform. The existing program does not always connect funding disbursed directly with the deployment or provision of actual service to consumers. The reformed system must ensure greater accountability.

The Commission should also follow through on its proposal to transition to market-driven and incentive-based policies in order to maximize the value of the program's scarce resources. This important goal militates in favor of a technology-agnostic and competitively neutral

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[4] NPRM at ¶ 6 ("Our USF and ICC programs currently are directed at telephone service, not broadband."). *See also*, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN, at 140-41 ("NATIONAL BROADBAND PLAN") ("[T]he current USF was not designed to support broadband directly, other than for schools, libraries and rural health care providers."); ¶ 7

[5] NPRM at ¶¶ 10, 457.

approach to funding that allows direct and equal participation in the CAF by all providers, including satellite providers.

We strongly support the Commission's efforts to reshape the USF under these four principles. To achieve effective reform under these principles, the Commission should adopt policies that reflect today's broadband marketplace and that fully leverage the substantial capabilities of satellite broadband providers by permitting satellite broadband providers to be full and direct participants in all phases of the CAF. The Commission's universal service reform efforts are a key step toward achieving the nation's broadband access goals, and satellite broadband providers stand ready to serve an integral role in those efforts.

II. THE COMMISSION SHOULD LEVERAGE THE CAPABILITIES OF SATELLITE BROADBAND PROVIDERS FULLY

A. To Achieve the Commission's Goals, Satellite Broadband Must Play a Key Role

The nation's broadband goals are ambitious in scope and timing. The NPRM estimates that "as many as 24 million Americans—one in thirteen of us—live in areas where there is no access to any broadband network, fixed (e.g., DSL or cable Internet service) or mobile."[6]

The Administration has correctly made broadband a national priority. As President Obama said in his State of the Union address:

> Within the next five years, we'll make it possible for businesses to deploy the next generation of high-speed wireless coverage to 98 percent of all Americans. This isn't just about faster Internet or fewer dropped calls. It's about connecting every part of America to the digital age. It's about a rural community in Iowa or Alabama where farmers and small business owners will be able to sell their products all over the world. It's about a firefighter who can download the design of a burning building onto a handheld

[6] *Id.* at ¶ 5.

> device; a student who can take classes with a digital textbook; or a patient who can have face-to-face video chats with her doctor.[7]

Satellite broadband providers hold the key to achieving this ambitious goal on a timely and economical basis. With the capability to deliver a high-quality broadband service to virtually all unserved rural Americans. Satellite broadband's unique coverage and cost-structure characteristics will allow the Commission to extend broadband to "unserved" households more quickly, and at lower cost, than terrestrial technologies alone. As we describe in detail below, satellite broadband providers have a significant amount of existing service capacity, more coming online soon, and the ability to deploy additional capacity rapidly.

Hughes Network Systems, LLC's ("Hughes") deployment of its high-speed satellite Internet service under a recent Rural Utilities Service ("RUS") grant is one example of how satellite broadband providers can quickly and efficiently provide service to unserved households. Hughes was awarded a $58.7 million RUS grant in August 2010 to provide satellite broadband service to unserved rural premises nationwide. Qualified consumers receive hardware and installation at no cost and a 33% discount on monthly service charges. Hughes initiated roll-out of its project in November 2010, and in just five months has already connected over 60,000 rural households, and will continue to connect a significant number of additional households. Such an aggressive timeline would be impossible to meet with terrestrial solutions. RUS spends about $1,250 per household served by its broadband stimulus awards taken as a whole,[8] well over double the amount spent to connect customers under the Hughes award. Surveys show that

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[7] President Barack Obama, State of the Union Address, January 25, 2011, *available at* http://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address .

[8] USDA, *The American Recovery and Reinvestment Act: Working for Rural Communities*, Rel. No. 0106.11 (March 9, 2011) at 7 (""RUS targeted its $3.5 billion in Recovery Act loans, grants, and loan-grant combinations to the hardest-to-reach rural areas of the country…. These RUS investments will bring broadband to approximately 2.8 million households.").

consumers benefitting from the Hughes program are very satisfied with their service, and the funding has created or preserved hundreds of jobs – and certainly catalyzed other economic activity.

Satellite broadband providers have invested billions of dollars of private capital to develop their broadband networks, but these systems will not inure to the benefit of unserved consumers unless satellite broadband providers are allowed to participate fully and directly in the CAF.

B. The NPRM Underestimates the Capabilities of Satellite Broadband Providers

1. Satellite broadband providers will have sufficient capacity to advance the universal service objectives set forth in Section 254 and the NRPM

Under the timelines envisioned by the NPRM, satellite broadband providers can expand their capacity to meet any speed or coverage requirement of the CAF. While we do not advocate adopting satellite broadband as the sole USF solution, it would be possible to deploy enough satellite capacity to provide at least 4/1 Mbps broadband service to every unserved household in the United States at an overall cost well below the $24 billion estimated required funding for the CAF. The NPRM states that satellite broadband providers are "ideal" for bringing broadband service to unserved in extremely high-cost areas, and we agree.[9] The same economics that make satellite "ideal" in very high cost areas also make satellite broadband a competitive and cost-effective alternative more generally, in both unserved and underserved areas. Because satellite can be such a positive competitive force, satellite broadband should be permitted to compete directly to be the supported provider in all areas.

[9] *See, e.g.,* NPRM at ¶ 133 ("Satellite service is ideally suited for serving housing units that are the most expensive to reach via terrestrial technologies, because there is little marginal cost to add a subscriber, assuming capacity is available.").

There is no basis for the NPRM's implication that satellite broadband capacity is indefinitely fixed at the amount currently on-orbit and under construction. Purported capacity limitations provide no basis to exclude satellite broadband providers from direct participation in Phase I of the CAF or for limiting participation in Phase II.[10] There are no technical limitations preventing the satellite broadband industry from expanding as required to meet anticipated demand. *No* provider—terrestrial or satellite—currently possesses infrastructure or capacity sufficient to extend broadband service to every unserved household. Indeed, an important goal of the CAF is to offer providers an incentive to expand broadband where market forces have not otherwise provided a reason to invest in infrastructure in these areas.[11]

As an example of the expansion possible by the industry, the next eighteen months will see the launch of the ViaSat-1 and Jupiter satellites, in 2011 and 2012, respectively. By the time the second satellite is launched, the industry will have expanded its total capacity by more than **20 times** the amount of capacity currently in orbit. Assuming that bandwidth demands grow as the Commission assumes to the point that a busy-hour load rate ("BHOL") of 160 kbps is the standard by 2015, then by the Commission's own estimate, these two satellites alone would be able to provide next-generation satellite broadband services to approximately one million households at speeds of at least 4 Mbps downlink, 1 Mbps uplink.[12]

A CAF framework that allows full participation in the reverse auctions by satellite broadband will provide significant incentives to construct additional capacity in the areas served by these satellites and to add much needed capacity in areas not within the new satellites'

[10] *Id.* at ¶ 272.

[11] *See, e.g., Id.* at ¶ 10 n.16.

[12] "Each next-generation satellite can support approximately 440,000 subscribers using the usage forecast for 2015." THE BROADBAND AVAILABILITY GAP at 91.

footprints.[13] For satellite broadband operators, the most likely deterrent to expansion of the industry would be establishment of a CAF that excluded satellite providers from full and direct participation.

With adoption of a truly technology-neutral legal framework for the CAF, satellite broadband providers are well-equipped to expand their capacity through the construction of additional satellites. They can do so promptly; additional satellites could be constructed in three years or less, and even a single provider could have multiple satellites in the construction pipeline at once. But committing the significant capital necessary to do so may be feasible only if the Commission allows satellite broadband providers to bid for CAF support in the same manner as all other broadband providers, and under a framework that is technology-neutral both facially and as applied.

Notably, ample orbital and spectrum resources are available to support satellite broadband expansion. Only about 10 of the approximately 40 orbital geostationary satellite arc positions with reasonable coverage of the United States are currently occupied by satellites using the Ka band—the most widely used spectrum to support satellite broadband services. Additional spectrum beyond the 1.5 GHz of the Ka band that is currently designated for user terminals could be licensed as well, including additional parts of the Ka band, the nascent V band, and other bands. In sum, the use of available Ka band orbital locations, co-locating multiple satellites at the Ka band orbital locations, and the use of additional spectrum are a few of the techniques that could be used to significantly increase the total satellite capacity available for broadband service.

[13] The footprints of each of ViaSat-1 and Jupiter cover only about half of the geographic area of the United States. This capacity is focused on the areas of the country along the West Coast and East of the Mississippi River.

The NPRM presents no evidence showing that satellite broadband providers will be more capacity-constrained than other types of providers (*e.g.,* terrestrial wireline and wireless). Instead, the Commission apparently relies on analysis presented by the Omnibus Broadband Initiative in its Technical Paper No. 1 ("The Broadband Availability Gap"), which assumes no growth in satellite capacity after the launch of the ViaSat-1 and Jupiter satellites in 2011 and 2012, respectively.[14] As such, the paper's indication that satellite capacity may be "limited" flows directly from its unsupported and illogical *assumptions*, and is not the product of any reasoned analysis or any attempt to evaluate how satellite broadband capacity is likely to grow over time in response to consumer demand. Conversely, that paper logically *assumes* that wireline and wireless providers will construct the capacity needed to respond to consumer demand, but provides no basis for the assumption that satellite broadband operators would not do so as well.[15] A look at the industry's history directly contradicts this point. When demand outstripped supply, both Hughes and ViaSat responded by increasing their capacity by ten-fold each by building new satellites that target the areas of greatest demand.

Excluding a telephone or wireless provider from CAF eligibility because that provider would not be able to serve *all* unserved households today would be illogical, as no provider can reach the FCC's estimated twenty-four million unserved Americans. Yet the NPRM suggests that satellite capacity would not be suitable for CAF purposes for precisely this reason. The NPRM suggests satellite capacity is "limited" because "existing and expected satellite capacity

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[14] THE BROADBAND AVAILABILITY GAP at 90. The paper apparently focuses on the ViaSat-1 and Jupiter broadband satellites that have been described in press releases from ViaSat and Hughes, respectively. Critically, these companies (and likely others) are actively working on plans to bring additional capacity on-line. In this sense, satellite broadband providers are no different than their terrestrial counterparts.

[15] *Id.* at 59-89.

will [not] be sufficient to serve *all unserved housing units in the United States* over the next few years at projected usage levels."[16] There is no justification for making any such distinction among technologies—satellite should not have a higher eligibility threshold than terrestrial technologies. Any decision to deny direct CAF participation to satellite providers based on a standard that no other provider meets, while still providing support to those other providers, would not withstand legal scrutiny. The question is not whether satellite broadband providers will be able to solve the nation's broadband concerns with currently committed capacity, but rather whether satellite broadband providers should be permitted to compete for funding on an equal basis with other providers to add capacity to do so. The answer to that question is a definitive "yes." Underestimating the ability of satellite broadband providers to contribute to the achievement of broadband goals, and precluding their full participation in the CAF, would undermine the objectives of the CAF, and create inefficiencies in the distribution of support.

2. Satellite broadband providers will offer high-speed, quality broadband services.

Next-generation broadband satellites will support not only the 4/1 Mbps service envisioned by the NPRM, but also service at even higher speeds (*e.g.,* 12/3 Mbps). According to FCC staff analysis, today's advertised speeds for DSL average 2.5-3.5 Mbps (including fiber-to-the-node networks), with median actual download speeds of 1.6 Mbps.[17] Terrestrial 3G mobile networks typically deliver speeds below 1 Mbps.[18] Speed is recognized as one of the most critical factors in supporting applications such as telemedicine, distance learning and high

[16] NPRM at ¶ 272 (emphasis supplied).

[17] BROADBAND PERFORMANCE, OBI Technical Paper No. 4, at 12, 15.

[18] *See, e.g.,* "Coverage & Speed, 3G Mobile Network," http://www.verizonwireless.com/b2c/mobilebroadband/?page=coverage.

definition video conferencing. These next-generation satellites also will be capable of providing symmetrical speeds, unlike most terrestrial technologies. By contrast, for example, most DSL networks are asynchronous, with upload speeds too slow to support applications such as high-definition video conferencing.[19]

Each broadband technology has its own advantages with respect to certain important attributes of broadband service. Attributes that are typically measured include peak or "up to" speeds, provisioning rates, burst capabilities, jitter, latency, mobility, and cost/price. As indicated above, satellite broadband excels at applications requiring speed. Moreover, because satellite broadband networks have low jitter (fluctuations in latency), applications such as distance learning, telecommuting activities, and telehealth work extremely well over satellite.

Satellite broadband networks also will be able to support real-time communications—whether by text, voice, or video. For virtually all Internet applications, the difference in latency between satellite broadband and terrestrial wireless broadband is imperceptible. In fact, latency affects few applications and could be more than offset by other advantages that satellite service may be able to offer (for example, a 12/3 Mbps satellite broadband service would likely be preferred by most consumers over a 4/1 Mbps long-loop DSL service).

The following table highlights some key points of comparison among various broadband technologies.

[19] *See, e.g.,* THE BROADBAND AVAILABILITY GAP, OBI Technical Paper No. 1, at 86. *See also* Federal Communications Commission, *Internet Access Services: Status As of June 30, 2010*, at 23, Tbl. 7

Broadband Technology Platforms:
Points of Comparison

	Next-Gen Satellite Broadband	Terrestrial Wireless	Wireline ADSL	Fiber
Speed	High	Moderate to High	Moderate	♦Very High
Jitter	♦Low	Moderate to High	♦Low	♦Low
Latency	Moderate	Moderate	♦Low	♦Low
Supports VoIP	♦Yes	♦Yes	♦Yes	♦Yes
Supports high-quality streaming video	♦Yes	Moderate	Generally not in rural areas	♦Yes
Supports high-definition video conferencing	♦Yes	No	Low quality (return link speeds too slow)	♦Yes
Durability in natural disasters/ terrorist attacks	♦High	Moderate	Low	Low

♦Highlight indicates superior technology for criterion

As this table demonstrates, satellite broadband providers offer service that is superior to terrestrial broadband service in many key respects. In any event, a fact-based, data-driven analysis shows that satellite broadband should participate in the CAF directly and on equal terms with other technology platforms.

III. THE COMMISSION SHOULD PERMIT SATELLITE BROADBAND PROVIDERS TO PARTICIPATE FULLY AND DIRECTLY IN ALL PHASES OF THE CAF

A. There Is No Justification for Restricting the Ability of Satellite Broadband Providers to Participate Fully and Directly in All Phases of the CAF

Satellite providers should be placed on equal footing with terrestrial providers (whether wireless or wireline), and be permitted to participate fully and directly in all phases of the CAF. We support the use of reverse auctions as long as they allow all technologies to compete on equal terms. Satellite broadband has been recognized as the low-cost provider of high-quality broadband services. As such, excluding satellite—the low-cost provider—from participating directly in reverse auctions would undermine the value of reverse auctions as an efficient distribution mechanism for CAF support. If a low-cost provider is excluded from bidding, other

bidders have less incentive to bid aggressively. And, of course, higher bids mean higher awards, leading to unnecessary inflation of the size of the fund and the contribution burden on consumers—including the very consumers that the CAF is designed to benefit. Adopting rules that cause such a result would be inconsistent with longstanding USF policy and the requirements of the Act.

Inasmuch as the NPRM finds that satellite service is "ideally suited" to *serve* households in the highest-cost areas,[20] the Commission cannot, consistent with Section 254 of the Act, also find the satellite broadband providers are somehow *un*suited to even *submit bids* in relatively-lower-cost areas. Excluding direct bidding by the only technology that has demonstrated an ability to serve the very low-density areas that are among the primary targets of the CAF, would be arbitrary and capricious.

Yet, this is precisely what the NPRM does. More specifically, the NPRM proposes to exclude satellite broadband providers from Phase I of the CAF, and suggests the possibility of excluding or limiting satellite participation in subsequent phases of the CAF.[21] This approach ostensibly is grounded in the Commission's belief that satellite providers will be capacity-constrained. As discussed above, though, any such belief is simply incorrect; satellite broadband providers can have abundant capacity with which to advance the objectives of the CAF, as long as the CAF is designed and implemented in a technology-neutral manner.

As such, any material limitation on the ability of satellite broadband providers to participate in the CAF would be inconsistent with the requirements of the Act. As the Commission has long recognized, "any wholesale exclusion of a class of carriers by the

[20] NPRM at ¶ 133.

[21] *Id.* at ¶¶ 272, 427.

Commission would be inconsistent with the language of the statute and the pro-competitive goals of the 1996 Act."[22] Thus, providers using *any* technology are eligible for support as long as they provide the required supported services.[23] More specifically, the Commission has found that satellite is fully eligible to participate in the current USF program on the same footing as any other technology, as "the principles of competitive and technological neutrality" demand that "non-landline telecommunications providers should be eligible to receive universal service support even though their local calls are completed via satellite."[24]

Despite this clear conclusion, however, other problems with the eligibility rules have prevented satellite providers from playing a significant role to date in addressing universal service challenges.[25] To ensure that competitive-and technological neutrality are implemented properly in the reformed mechanism, the Commission should allow satellite broadband providers to participate fully and directly in the CAF, on equal footing with terrestrial providers (wireless and wireline). At a minimum: (i) satellite providers should be allowed to participate in all aspects of the CAF—including any reverse auctions held during Phase I—and no other provider should have preferential rights or a "right of first refusal" with respect to such support; (ii) there should be no limits on the number or type of areas for which satellite providers may submit bids or receive support (as long as they are bound by the same performance assurances as other providers); and (iii) satellite providers should be permitted to partner with terrestrial providers

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[22] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8858 ¶ 145 (subsequent history omitted) ("*USF First Report & Order*").

[23] *Id*.

[24] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Fourth Order on Reconsideration, 13 FCC Rcd 5318, 5325 ¶ 10 (1997).

[25] *See, e.g.,* Comments of the Satellite Ind. Ass'n, CC Docket No. 96-45 (filed June 22, 2007) (addressing issues regarding satellite equipment).

(wireless or wireline) in preparing bids and extending service to consumers, in the same way that the NPRM proposes to permit terrestrial providers to partner with satellite providers.

Given the imminent launch of the ViaSat-1 and Jupiter satellites, we believe that Phase I of the CAF presents a unique opportunity to demonstrate the significant role that next-generation satellite broadband can play in extending broadband to unserved households. To that end, we recommend that the Commission work with satellite broadband providers to explore additional ways (above and beyond full participation in any reverse auctions) to use Phase I to inform how satellite technologies could be leveraged in subsequent phases of the CAF. For example, the Commission could use data gleaned from satellite broadband providers' participation in Phase I to study satellite broadband providers' performance, consumer satisfaction, trade-offs between higher speeds and latency, the relative weights that consumers place on the various characteristics of broadband service (e.g., speed, smooth video streaming), and the efficiencies gained by satellite participation in various auctions, among other things. Each of these metrics would be consistent with the Act, advance the objectives set forth by the Commission in the NPRM, and ensure that any Commission decisions regarding the tens of billions of taxpayer dollars that will be committed in Phase II are based on empirical data and not misperceptions.[26] On the other hand, arbitrarily limiting the ability of satellite broadband providers to participate in the CAF would undermine the value of reverse auctions as an efficient mechanism for distributing CAF support by: (i) limiting the competitive pressures that satellite broadband providers could bring to bear in a reverse auction; (ii) allowing terrestrial providers to realize a windfall at the public's expense by reselling low-cost satellite service without reducing their bids

[26] NPRM, Statement of Chairman Julius Genachowski ("we will run a fact-based, data-driven, open, and participatory process").

to reflect the use of such service; and (iii) delaying the roll-out of broadband service by reducing incentives for terrestrial providers to implement their own broadband solutions quickly.[27]

For similar reasons, the NPRM's second approach for Phase II—allowing satellite providers to bid for up to a maximum number of households—is not acceptable from a public policy perspective as the sole mechanism to allow satellite broadband participation.[28] This approach again would assume that the Commission should artificially limit the number of households satellite broadband may serve. There is no justification for imposing this type of limitation on only a particular technology or class of providers. More extensive use of satellite broadband is possible and would be a *good* thing—not something the Commission should seek to limit. Moreover, to the extent this approach assumes that satellite providers face greater capacity constraints than other providers, this assumption is incorrect. Satellite providers should be able to construct and launch new satellites to meet the needs of the unserved, just as terrestrial providers will be allowed to extend their facilities. Thus, we see a hazard in that this approach limits satellite providers to serving a "maximum number of housing units" in any given area, rather than incenting the use of satellite broadband as much as possible to yield the highest adoption rate. The only constraint on the number of unserved households that satellite broadband providers may serve in a given area should be *the number of unserved households in that area*. Any other approach would succeed only in artificially limiting the contribution that satellite broadband providers otherwise could make to the efficiency of the CAF mechanism, and

[27] Because terrestrial providers would be able to rely on satellite capacity, they would have diminished incentives to implement terrestrial solutions quickly, and could bide their time and introduce service only at the end of compulsory roll-out period.

[28] *See* NPRM at ¶ 426.

the timeliness and effectiveness of the Commission's efforts to extend broadband service to millions of unserved households.

Also misguided is the NPRM's third alternative for Phase II of excluding satellite providers from the CAF altogether, while allowing them to participate in subcontracting arrangements with winning bidders.[29] Compelling satellite operators to participate in the CAF only indirectly, through "prime" funding recipients, would eliminate the competitive pressures that satellite operators otherwise would bring to bear on direct participants in the reverse auction setting. This would lead to an increased funding burden, and a reduction in both funding efficiency and the public benefits from the CAF. At the same time, this approach would allow "prime" funding recipients to convert the potential public value of relatively low-cost satellite technologies into private gains, as these "prime" recipients would have little incentive to lower their bids to reflect their ability to resell relatively low-cost satellite broadband capacity.

If the Commission nonetheless fails to permit satellite broadband providers to participate fully in all phases of the CAF, on equal footing with other technologies, it would be inconsistent with longstanding USF policy and the requirements of the Act to include satellite broadband revenues in the USF contribution base. Neither satellite broadband providers nor their end users should be required to subsidize higher-cost, less-efficient competitors in the same service areas that receive support under a funding mechanism that violates the principle of competitive neutrality, which has been central to USF policy for over 15 years.[30] While the Commission has always required contributions from some parties ineligible for support, it has never arbitrarily excluded a class of providers that could otherwise meet statutory eligibility requirements and

[29] *See* NPRM at ¶ 427

[30] *See* 47 USC § 254(b)(7); *USF First Report & Order*, 12 FCC Rcd 8776, at ¶ 47.

provide the services supported by USF, based purely on those providers' use of a given technology.

B. The Commission Should Eliminate Duplicative Support to Legacy Providers

While the *NPRM* recognizes that "currently unserved areas may be more economically served by satellite," it also expresses the belief that "consumers currently served by terrestrial broadband or voice services should [not] lose access to their terrestrial service."[31] This assertion runs contrary to the intended purpose of the CAF—namely, to adopt a new support mechanism that: (i) is competitively and technologically neutral;[32] and (ii) transitions support away from inefficient legacy networks and toward more efficient networks, reducing the burden on the high-cost fund, and the consumers who fund it, in the process. In many markets, it simply will make good business sense for satellite and other broadband providers to partner with voice providers to offer a complete package of services, such that LECs would have a continuing revenue stream for some time.

Consistent with these principles, where terrestrial services are not the most economical option, they should not be directly subsidized by the CAF. Moreover, satellite providers initially will have "next-generation" coverage of geographic areas accounting for only about one-half of high-cost support currently distributed under legacy support mechanisms, and are unlikely to "win" support in all such areas. Where a satellite broadband provider does submit the winning bid, though, support should be transitioned to that provider and away from legacy providers.

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[31] NPRM ¶ at 428.

[32] Notably, the *NPRM* advances no parallel proposal to preserve existing *satellite* services.

IV. THE OBLIGATIONS OF NEAR-TERM AND LONG-TERM CAF RECIPIENTS SHOULD REFLECT TODAY'S BROADBAND MARKETPLACE

A. The ETC Requirements Should Facilitate Achievement of National Broadband Goals

As the NPRM rightly observes, the challenge in this proceeding is to transform "a 20th century [universal service] program into an integrated program tailored for 21st century needs and opportunities" – most particularly, "[b]ringing robust, affordable broadband to all Americans."[33] To achieve this goal, the Commission must look beyond narrow, 20th century categories and avail itself of the most advanced technologies.

Congress explicitly intended for the universal service program to ensure "access to advanced telecommunications and information services,"[34] and directed the Commission to "tak[e] into account advances in telecommunications and information technologies and services" in defining the "services" supported by universal service.[35] Given that there were virtually no mass-market broadband offerings in 1996, it is unsurprising that Congress did not explicitly provide for the designation of information service providers as eligible to receive universal service support.[36] Today, however, most broadband providers – including, for example, cable operators and satellite broadband providers – do not operate as common carriers of telecommunications services. Therefore, in order to address "21st century needs and opportunities," the Commission must make clear that common carrier status is not required in order to receive support from either the near-term or the long-term CAF.

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[33] NPRM at ¶ 1.

[34] 47 U.S.C. § 254(b)(2).

[35] 47 U.S.C. § 254(c)(1). *See also id.* at § 254(c)(2) (permitting the Commission to modify the definition of "services" supported by USF).

[36] *See* 47 U.S.C. §§ 214(e), 254(e).

As the Commission has already concluded, and the Fifth Circuit has affirmed, sections 254 and 4(i), taken together, give the Commission the authority to make universal service support available to non-common carriers in order to fulfill the Commission's "primary directive" to "'enhance access to advanced telecommunications and information services.'"[37] In that case, the Commission was interpreting its authority under section 254(h)(2)(A) in order to make USF support available to information service providers that offer Internet access to eligible schools and libraries.[38] The language is identical, however, in sections 254(b)(2) and 254(c)(1) – which apply to all facets of the universal service programs, including the high-cost program.[39] There, the Commission rightly concluded that it would "create an artificial distinction" to provide support to Internet access providers that were affiliated with common carriers but not to Internet access providers that lacked common carrier affiliates.[40] The Commission concluded that it should allow customers benefiting from universal service support "to take the fullest advantage of competition to select the most cost-effective provider of Internet access" and that the "goal of competitive neutrality would not be fully achieved if the Commission only provided

[37] *Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393, 444 (5th Cir. 1999) ("*Texas Counsel*").

[38] *USF First Report & Order*, 12 FCC Rcd at 9086 ¶¶ 589-600. In addition, the Commission also concluded that section 254(e)'s restriction on providing USF only to common carriers did not apply to support provided pursuant to section 254(h)(2)(A), *id.*, but the Fifth Circuit did not rely on that portion of the Commission's analysis in affirming the Commission's authority. *See Texas Counsel*, 183 F.3d at 444.

[39] *Compare* 47 U.S.C. § 254(h)(2)(A) ("access to advanced telecommunications and information services") *with id.* at 254(b)(2) ("[a]ccess to advanced telecommunications and information services") *and id.* at 254(c)(1) ("taking into account advances in telecommunications and information technologies and services").

[40] *USF First Report & Order,* 12 FCC Rcd at 9085 ¶ 590.

support for non-telecommunications services such as Internet access … when provided by telecommunications carriers."[41]

The Commission should reach the same conclusion here, and exercise its authority under sections 254 and 4(i) to make broadband support available to information service providers, including satellite broadband providers. Specifically, the reformed universal service rules should make clear that information service providers, including satellite broadband providers, are eligible to participate in the near-term and long-term CAF programs.

Alternatively, if the Commission questions its authority to do so under the current statute, it should exercise its section 10 forbearance authority with respect to section 254(e)'s requirement that "only an eligible telecommunications carrier designated under section 214(e) shall be eligible to receive specific Federal universal service support."[42] The standard for forbearance is met in this case. It is not necessary to restrict support to telecommunications carriers to ensure that rates or practices are reasonable. In fact, allowing only telecommunications carriers to receive universal service support will reduce competition, to the potential detriment of consumers. For the same reason, restricting support to telecommunications carriers is not necessary to protect consumers, because allowing non-common carriers like satellite broadband providers to participate in the fund will benefit consumers by lowering rates and increasing service options. Thus, forbearance would advance both the public interest and competition.

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[41] *USF First Report & Order*, 12 FCC Rcd at 9086-87 ¶ 594.

[42] 47 U.S.C. § 254(e). *See also* 47 U.S.C. § 160 (forbearance authority). The Commission's authority to forbear on its own motion is limited to "telecommunications carriers or telecommunications services," *id.* at § 160 (a), but it could entertain a petition for forbearance from a telecommunications carrier "with respect to … *any service* offered by that carrier," apparently including an information service. *Id.* at § 160(c) (emphasis added).

The Commission should also set up federal procedures to designate "nationwide" broadband providers as ETCs in all states. Section 214(e)(6) authorizes the Commission to designate satellite providers on a nationwide basis because satellite broadband services are "not subject to the jurisdiction of a State commission."[43] Broadband Internet access is unquestionably an interstate service,[44] and any attempt by states to regulate a separate *intra*state component of such services would be preempted because such regulation would "stand[] as an obstacle to the accomplishment and execution of the full objectives" of federal policy.[45] Notably:

- Such services are "jurisdictionally mixed," without any practical way of separating the interstate and intrastate components of such service, or the components of such service internal to any particular state, such that any state

[43] 47 U.S.C. § 214(e)(6).

[44] *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, WC Docket No. 02-33, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) ("*Wireline Broadband Order*"); *Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, WT Docket No. 07-53, Declaratory Ruling, 22 FCC Rcd 5901 (2007) ("*Wireless Broadband Order*"); *Inquiry Concerning High-Speed Access to the Internet over Cable and other Facilities*, GN Docket No. 00-185, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4825 (2002) ("*Cable Modem Order*"); *United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*, WC Docket No. 06-10, Memorandum Opinion and Order, 21 FCC Rcd 13281 (2006) ("*BPL Order*").

[45] *La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 368-69 (1986). The Supreme Court has held that preemption may result not only from action taken by Congress but also from a federal agency action that is within the scope of the agency's congressionally delegated authority. *See Fidelity Federal Savings & Loan Ass'n v. De la Cuesta*, 458 U.S. 141 (1982); *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691 (1984). *Cf. Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404 (2004) ("*Vonage Order*").

regulation of such services unavoidably would reach interstate components subject to exclusive federal jurisdiction;[46]

- Such services rely on joint infrastructure (*e.g.,* a satellite) that provides service to end users in multiple jurisdictions across large geographic areas, and any state regulation of such infrastructure necessarily would impinge on the use of that infrastructure to serve other states or provide interstate service, or to advance federal broadband policy;
- Preempting state regulation of satellite broadband services is necessary to preserve and advance federal statutory objectives, including "Congress's clear preference for a national policy" of limited regulation of the Internet, and to forestall "multiple disparate attempts" to regulate such services, which would thwart their development.[47] (In contrast, allowing state regulation would invite the imposition of 50 or more sets of different regulations on satellite broadband providers, which in turn could risk eliminating or hampering these innovative advanced services that facilitate additional consumer choice, spur technological

[46] Satellite broadband services have "the inherent capability . . . to utilize multiple service features that access different websites or IP addresses during the same communication session and to perform different types of communications simultaneously," which makes "jurisdictional determinations" with respect to such services "difficult, if not impossible." *Cf. Vonage Order* at ¶¶ 24-25.

[47] *Id.* at ¶ 36. *See also* 47 U.S.C. § 230(b)(2) ("It is the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.'"); 47 U.S.C. § 157 note (directing the FCC "to encourage the deployment" of broadband through measures that "'promote competition'" and remove "'barriers to infrastructure investment.'").

development and growth of broadband infrastructure, and promote continued development and use of the Internet."[48]

Critically, nothing in Section 214(e)(6) requires the Commission to wait for states to "waive" jurisdiction where it is clear that they would be preempted from asserting such jurisdiction.[49]

Accordingly, the Commission can and should act to designate satellite providers as ETCs on a nationwide basis.[50] This approach would recognize that it is not realistic to expect satellite broadband providers to complete ETC processes in all 50 states prior to the CAF application process. Such a requirement would obviate much or all of the speed-to-market advantage that satellite providers can bring to the achievement of the Commission's broadband goals. Satellite broadband providers are also concerned that many states may be unfamiliar with satellite broadband service and, unlike ILECs, satellite broadband providers do not have long-standing relationships with state regulators. As a result, a federal designation process at the Commission is the best way to bring the benefits of satellite broadband to the CAF.

B. Public Interest Obligations Should Reflect How Broadband Is Delivered Today

The Commission seeks comment on the appropriate public interest obligations to impose on CAF recipients, and how best to balance the costs of complying with public interest "with our proposed principles of fiscal responsibility and accountability and our goal of rapidly increasing

[48] *Vonage Order* at ¶ 37.

[49] The Commission traditionally has sought an affirmative waiver from states with respect to terrestrial wireless services, over which states have exercised jurisdiction in the past, and which rely on infrastructure that can be segregated by jurisdiction. Satellite broadband services are easily distinguished in both respects.

[50] In the alternative, the Commission could exercise its forbearance authority to establish a clock for, or bypass altogether, dilatory state ETC designation procedures.

broadband deployment in unserved areas."[51] The best way to strike this balance is to adopt public interest obligations for CAF recipients that are flexible and technology-neutral.

CAF recipients should be permitted to partner with other providers to fulfill any voice service obligations that may be imposed on funding recipients.[52] This partnering opportunity must be provided on a competitively neutral basis to all participants. For example, satellite providers should be permitted to partner with terrestrial providers (wireline and wireless), to the same extent that terrestrial providers are permitted to partner with satellite providers.

States should not be permitted to impose any obligations on funding recipients that are not otherwise subject to state jurisdiction, and legacy regulations that states have imposed on incumbents should not be imported into the federal USF.[53] State carrier-of-last-resort obligations are not permitted to burden the federal fund,[54] and it is unclear whether existing state requirements will advance federal universal service goals. Thus, any obligations should be established by the Commission at the federal level.

Broadband service obligations should be consistent with the principle of competitive neutrality and the Commission's pro-competitive goals in this proceeding. Broadband should be defined without reference to any technology.[55] Consistent with the National Broadband Plan's recommendation, broadband should be defined at this time as at least 4 Mbps download and 1

[51] NPRM at ¶ 94.

[52] *Id.* at ¶ 98.

[53] *Id.* at ¶¶ 100-101. *See also supra* (FCC should designate federal ETCs for unserved areas).

[54] 47 U.S.C. § 254(f).

[55] NPRM at ¶ 104.

Mbps upload.[56] This is a reasonable target that competitive providers on multiple platforms should be able to reach.

CONCLUSION

The Satellite Broadband Providers urge the Commission to adopt universal service reform consistent with these comments.

Respectfully submitted,

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[56] *Id.* at ¶ 109.